

HD-88LA ▶

8x8 HDMI Matrix Switcher

INSTRUCTION MANUAL



HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE



AUDIO / VIDEO MANUFACTURER

A-NeuVideo.com | Frisco, Texas 75034 | (317) 456-2461

V.1.2



SAFETY INFORMATION



1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the "ON" position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
 - E. The equipment has been dropped, or the enclosure damaged.

TABLE OF CONTENTS

▶ CONTENTS

PACKAGE CONTENTS	1
INTRODUCTION & FEATURES	2
SPECIFICATIONS	3
FRONT PANEL	4
REAR PANEL	7
TYPICAL APPLICATION	8
REMOTE CONTROL	10
IR EXTENDER	12
EDID FUNCTION	13
ETHERNET SERIAL INTERFACE	17
RS-232 SERIAL INTERFACE	18
GUI INTERFACE	19

▶ PACKAGE CONTENTS

1. Main console Matrix Switcher unit.
2. Operating Instructions
3. IR remote controller (HD-88IR)
4. 19-inch ear mount bracket (Part # 1U-440 L)
5. IR extender SB-100 receiver (300M length)
6. IR extender SB-100C receiver (2M length)
7. 16x HDMI connector use ISO screw (L5mm/OD3mm)
8. CD contents: This manual, Windows GUI
9. RS-232 Cable
10. Power Supply 12VDC, 5A Universal Type 50/60Hz, 100~240 VAC



▶ SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

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▶ TRADEMARK ACKNOWLEDGMENTS

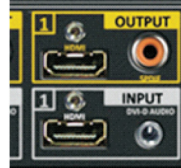
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FEATURES

INTRODUCTION

The HD-88LA is high-performance 8x8 matrix routing switcher for HDMI signals. This switcher supports data rates up to 6.75 Gbps, enabling 1080p HDMI formats and UXGA/WUXGA/DVI resolution to any HD display. High Definition Digital signals can be selected and distributed to any (8) outputs simultaneously. The Switcher is certified as being fully HDMI and HDCP compliant, with RoHS, CE, FCC certification. Support high resolution HDMI sources routed to HDMI displays, monitors, and projector or audio receivers. The EDID can be selected between (8) different modes. Control is provided via front panel push buttons, IR remote, RS-232 or TCP/IP (not a web-browser). An RS-232/Ethernet Windows GUI software program is provided for matrix routing control (Windows only).

(2) unique features of the HD-88LA is separate audio Inputs and Outputs.



On any Input, you can use a DVI to HDMI adaptor (not included) and a separate audio signal. The video will be embedded on the Output signal. On any Output, you can take advantage of the SPDIF (coaxial digital) audio output. This is an excellent feature that allows audio to connect directly to an audio receiver. The S/PDIF can carry (2) channels of uncompressed lossless PCM audio or compressed 5.1/7.1 surround sound such as Dolby Digital Plus or DTS-HD High Resolution Audio. But, it does not have the capacity to carry the uncompressed data in the lossless formats of Dolby TrueHD and DTS-HD Master Audio – as HDMI does.

FEATURES

- 8x HDMI digital source devices matrix switched to 8x HDMI devices
- HDMI digital video w/embedded audio, DVI format and CEC/HDCP 2.0 compliant
- (7) function key control and worldwide (8) EDID modes for HDTV resolutions
- Link speeds of up to 6.75 Gbps (link clock rate of 340Mb Hz), Support HDMI 1.4a 3D formats
- Support (DVI) Audio input and SPDIF output.
- Wide range of HD resolutions from PC XGA to WUXGA 1920x1200 and HDTV/DTV resolutions 480i/480p, 576i/576p, 720p, 1080i & 1080p
- Compatible with all HDMI source devices, PC monitors, Plasma HD display, HDTV and audio receivers/amplifiers.
- Digital Video TMDS formats Resolutoin up to 1080p-60 with Deep color 36-bit
- Digital Audio Support :
 - Dolby TrueHD, Dolby Digital, Dolby Digital Plug/ex,
 - DTS, DTS-HD, DTS-HD Master, DTS-EX
 - PCM, PCM2, LPCM2
- Various User Interface control:
 - Windows based GUI control via RS-232 port or Ethernet
 - Front Panel push button
 - IR wireless remote control
 - Third party RS-232 control
 - Third party Ethernet control
- Support world wide control functions: ALL/OFF/RECALL/ENTER/MEMORY/EDID/LOCK
- Support EDID modes :
 - Embedded EDID modes : FSS/H24-3D/H24-3D-M/H36-3D/H36-3D-M/DVI-D 1280x1024-60Hz/DVI-D 1920x1200-60Hz/AUTO
 - External modes : Learning mode
- Automatic scanning input & output status via LED show on front panel
- Support preview output port simultaneously output #1
- Support IR Remote and IR Extender with distance up to ~ 1000ft (300M) Maximum
- EDID configuration via Internal modes.
- Consumer Electronic Control (CEC) switch all open or OFF

The Switcher will remember that last state during a power cycle.

When power is removed and resorted, the last configuration will be invoked

SPECIFICATIONS

SPECIFICATIONS

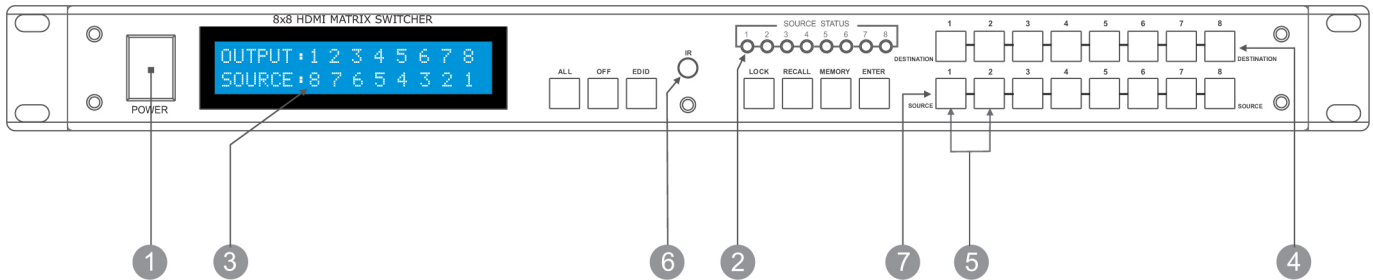
- **Type of HDMI Switcher:** 8x HDMI Inputs to 8x HDMI Outputs Matrix Switcher
- **HDMI Support:** HD 1080p@60Hz, H36-bit Deep color, 3D (1.4a) formats
- **HDCP/CEC Support:** HDCP 2.0 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 340Mhz, Total 6.75Gbps bandwidth
- **Digital Video Support:** Full HD resolution : 480i / 480p / 720p / 1080i / 1080p
- **Digital Audio Support:** Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6.1, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- **Controls:**
 - IR Remote Controller or External port (3.5mm Ear phone Jack)
 - Select & Function buttons on front panel
 - RS-232 series interface
 - Use Ethernet Control switcher
- **Audio Support:** Support Audio Input and SPDIF output
- **Source Status:** Automatically Scan Sources Inputs via LED
- **Function Control Key:** ALL / OFF / RECALL / ENTER / MEMORY / LOCK / EDID
- **Infrared Frequency:** 38 Khz
- **IR External Distance:** ~1000 ft / 300M maximum
- **HDMI I/O Connector:** HDMI Type A - SMD 19pin Female Type
- **Temperature:** 32°F - 100°F Operation (0°C - 38°C)
- **Dimensions (LxWxH):** 19 x 9.85 x 1.75 in (482x250x44 mm)
- **Rack Mount:** Rack Mount 1RU High 19 "Rack Mount (with rack mount)
- **Power Supply:** DC12V / 5A, Universal world wide Type 50/60Hz, 100~230 VAC
- **Power Consumption:** 3880 mA Maximum
- **Safety Approvals:** CE, FCC, RoHS (2002/95/EC)
- **Product Weight:** 4.2 lb/2.50 Kg

Note: Specifications are subject to change without notice.

Because of limitations on source and display devices, not all EDID data is compatible and subsequently not all equipment will function correctly with this switcher.

FRONT PANEL

FRONT PANEL



1 POWER SWITCH

The power switch turns the unit on and off. The LCM will illuminate red to indicate that the switcher is ON and is receiving power. The Switcher will remember that last state during a power cycle.

When power is removed and resorted, the last configuration will be evoked.

2 INPUT STATUS DISPLAY

Input sources 1 to 8 LCM illuminates blue to indicate that a video source is present on that input.

3 OUTPUT STATUS DISPLAY

Each Output (destination) Channel shows which input (source) is assigned.

4 DESTINATION SELECT BUTTONS

Separate outputs 1 thru 8 select buttons are provided for each destination assignment.

Routing can be Source to Destination or one source to multiple destinations.

Example : Press Destination 1, 3, 5 then press Source 2 will route Input 2 to Output 1, 3, 5 respectfully.

5 EDID MODE SELECT BUTTONS

Used to select EDID mode using buttons #1 thru #2

6 IR SENSOR

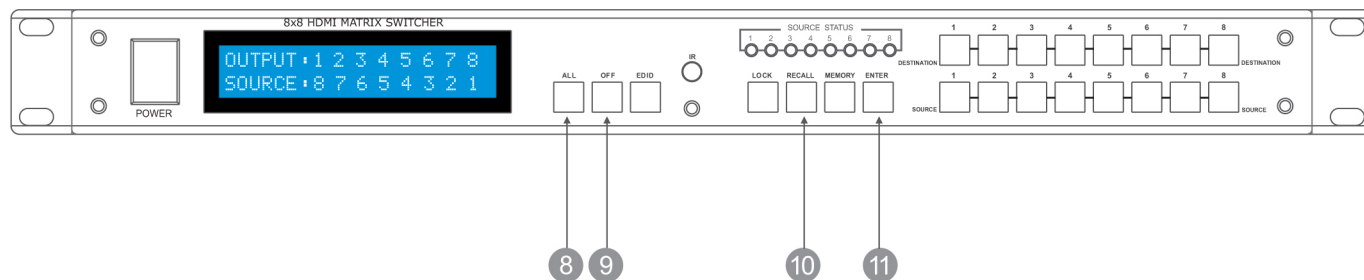
The IR sensor receives IR commands from the supplied remote controller or third party IR emitter.

7 SOURCE SELECT BUTTONS

Separate inputs 1 thru 8 select buttons are provided each source selection.

FRONT PANEL

FRONT PANEL



8 FUNCTION KEY - ALL



Disables (mute) video on all destinations OR Selects the same source to all destinations.

Option 1

- Press **ALL** followed by **OFF** button. The display will show " 0 " indicating all destinations have no video selected.

Option 2

- Press **ALL** followed by Source 1 thru 8. The display will show the Source selected.
- Press **ENTER** The pre-set source selection will be assigned all destinations.

9 FUNCTION KEY - OFF



Disables (mute) video to selected channels. Either destinations.

- Press **OFF** button followed by any Destination channel.
- Press 1 thru 8 output destination. The display will show " 0 " for the selected channel indicating no video selected.

10 FUNCTION KEY - RECALL



The system will show previously stored presets, up to a total of 16.

Presets are stored in local memory using Source keys 1 thru 8 or Destination keys 1 thru 8 as the memory preset location.

- Press **RECALL** button.
- Press 1 thru 8 on either Source or Destination row.
- Press **ENTER** The pre-set configuration will execute.

Operation completes.

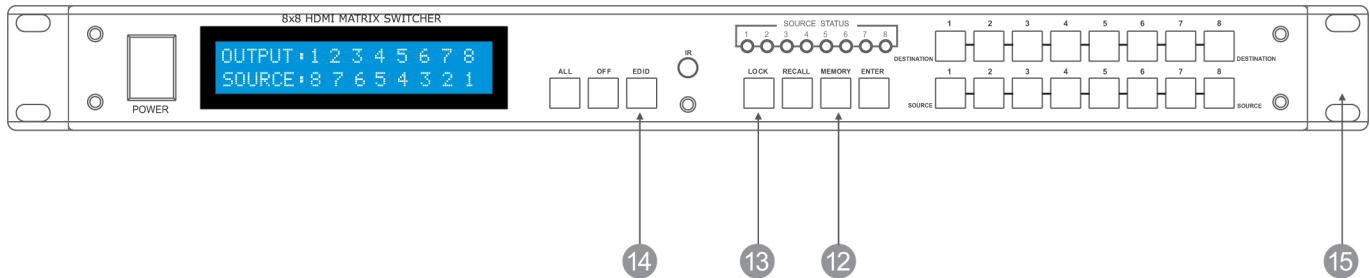
Operation will abort if no keys are pressed with 5 seconds.

11 FUNCTION KEY - ENTER

- Press **ENTER** to confirm entries.

FRONT PANEL

FRONT PANEL



12 FUNCTION KEY - MEMORY



The system will show store presets, up to a total of 16.

Presets are stored in local memory using Source keys 1 thru 8 or Destination keys 1 thru 8 as the memory preset location.

- Configure desired matrices.
- Press **MEMORY** button.
- Press 1 thru 8 on either Source or Destination row.
- Press **ENTER** to ready memory location.
- or press **MEMORY** again to cancel operation.

Operation completes.

Note : Operation will abort if no keys are pressed within 5 seconds.

13 FUNCTION KEY - LOCK



- Press and hold **LOCK** button for two seconds lockout the front panel.
- Press and hold **LOCK** button for two seconds to enable the front panel.

14 FUNCTION KEY - EDID



- Press **EDID** to select new EDID mode or select source row #1 or #2 for LINK source EDID again.
- Press the DESTINATION # to learn EDID. The Destination EDID has been learned.

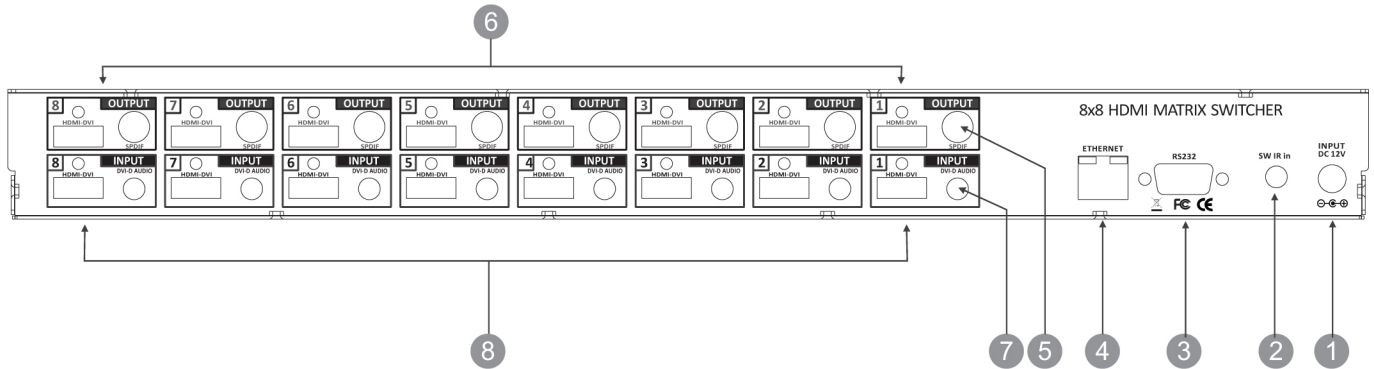
15 19 INCH EAR MOUNT PAIR

Converts desktop to 19 inch rack mount. Bracket (part # 1U-440L) INCLUDED.

Image shows rack mount bracket attached.

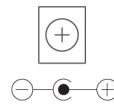
REAR PANEL

REAR PANEL



1 DC POWER INLET

The Switcher is fitted with a DC power plug input connector. Ensure that the used is of an approved type and is of sufficient current carrying connector capacity with the correct voltage and connector polarity. 12Volt DC power supply 5A Max (Center pin positive).



Power Jack:

DC Jack - Inner OD \varnothing 2.1mm (+)
Outside OD \varnothing 5.5mm (GND)
Power input - 12VDC, 5A

2 IR EXTENDER CONTROL

Support one of IR Extender (IR input). Extend distance maximum 984 ft (300 m) **Note: DO NOT install or remote this connection with the power ON.**

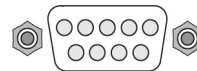


IR Extender Jack:

Female Jack - inner OD \varnothing 3.5 mm

3 RS-232 CONNECTION

RS-232 control port to allow for interfacing to a PC, Such as a computer or touch panel control, to the switcher via this DB-9pin Female connector for serial RS-232 control.

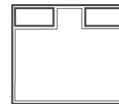


Remote port :

DB-9pin Female connector

4 ETHERNET CONNECTION

Connect a signal link of Ethernet direct to this Female RJ-45 connector. This connector supports Ethernet control via a PC by support AP and protocol commands.

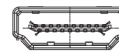


Remote port : Control the switcher RJ-45 Female connector

Ethernet Port: Note: the Ethernet port and RS-232 port cannot be used simultaneously. Any connection to the Ethernet port will disable serial commands send to the RS-232 port.

5 6 OUTPUTS- 1,2,3,4,5,6,7 & 8 HDMI

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources. HDMI Digital Video/Audio, Connector with fix screw Output 1 ~ Output 8



HDMI digital video/audio connector:

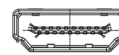
HDMI Female connector.

Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. DVI audio support 2CH..

SPDIF: Use RCA connector with digital audio signals output.

7 8 INPUTS- 1,2,3,4,5,6,7, & 8 HDMI

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources. HDMI Digital Video/Audio, Connector with fix screw Input 1 ~ Input 8



HDMI digital video/audio connector:

HDMI Female connector.

Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. The DVI support Audio input.

Audio: Support the audio input when you use DVI signals.

INSTALLING DIAGRAM

HDMI Projector

IR-Transmitter To Projector

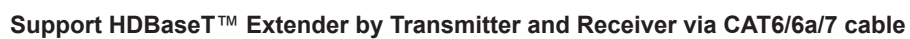
HDMI out

IR out

HDMI Extender-RX

IR Extender Cable

1. IR Control Projector Over HDBaseT™ Extender: Use HDBaseT™ Transmitter & HDBaseT™ Receiver
2. Audio Input : Uspsport DVI Audio input.
3. RS-232 Control
4. External IR Remote.
5. IR Extension port : Control Switcher.
6. Ethernet port : Control Switcher via Ethernet.



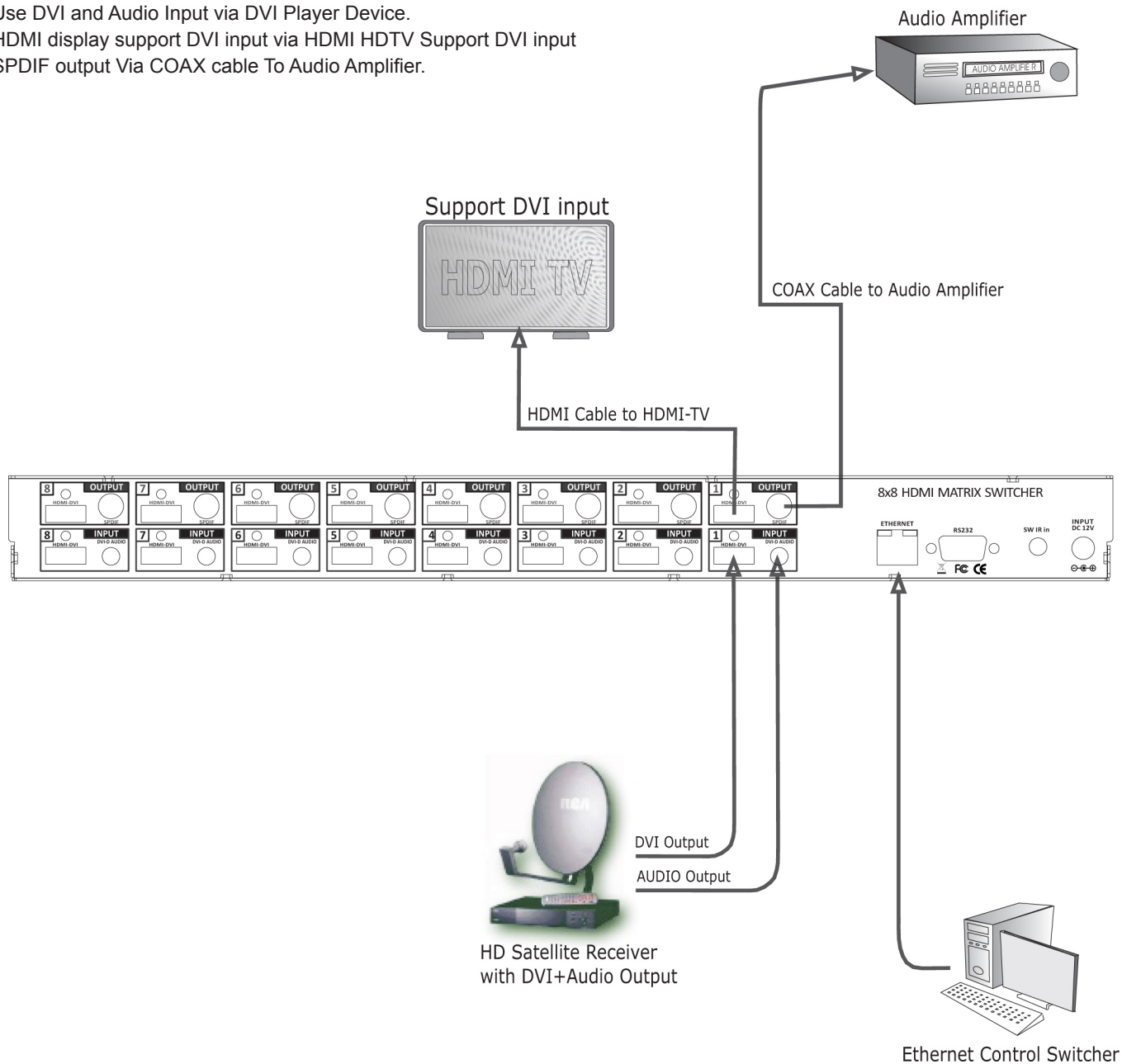
TYPICAL APPLICATION

INSTALLING DIAGRAM

Sample connection using DVI & Audio input and link to the AUDIO Amplifier via SPDIF digital signal output.

NOTE :

1. Use DVI and Audio Input via DVI Player Device.
2. HDMI display support DVI input via HDMI HDTV Support DVI input
3. SPDIF output Via COAX cable To Audio Amplifier.



Support DVI and Audio input by SPDIF output to Audio Amplifier

REMOTE CONTROL

Before making any connections to the switcher. Observe the following:

- > Ensure the mains voltage supply matches the label on the supplied plug-pack (+/- 10%)
- > Ensure that the power switch is OFF
- > Ensure that all system grounds (earth) are connected to a common point.
- > Avoid powering equipment within a system from multiple power sources that may be separated by large distances
- > Connect all audio video sources and destination equipment
- > Power up all source and destination audio-visual sources
- > For each destination output select the appropriate input source by using the front panel input 1~8 select buttons. The supplied IR remote control. Or through the RS-232 serial communications port.
- > Upon power up the switcher will return to its last used setting before powered down.

REMOTE CONTROL

1 2 IR REMOTE CONTROL KEY :

2 SWITCH 1 POWER ON or OFF

Controller with a separate power ON and OFF

3 DESTINATION : 1 thru 8 OUTPUT SELECTION

Press the destination button to select the output display channel.

4 SOURCE : 1 thru 8 INPUT SOURCE SELECTION

Press input 1~8 sources with selection button

5 FUNCTION KEY

ALL - function selection button

OFF - function selection button

EDID - function selection button

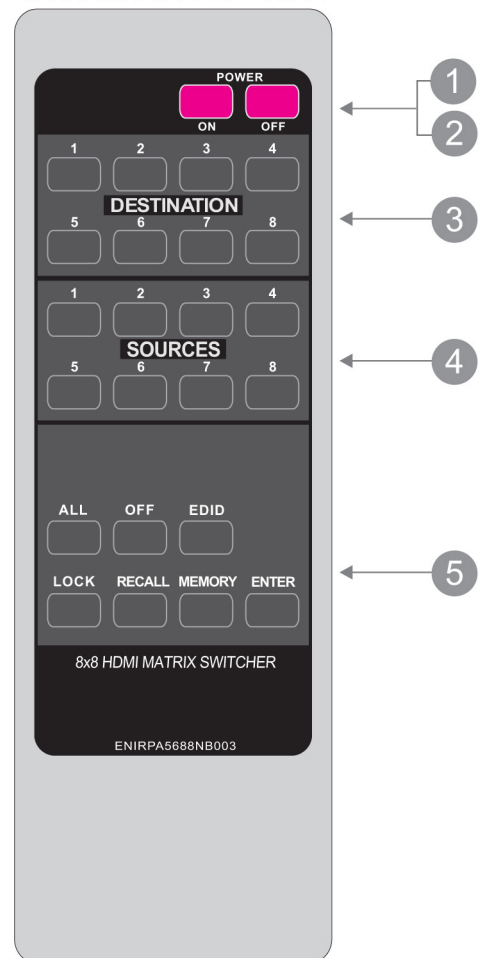
RECALL - function selection button

MEMORY - function selection button

ENTER - function selection button

LOCK - function selection button

IR REMOTE : HD-88LA



REMOTE CONTROL

IR REMOTE CUSTOM AND DATA CODES (NEC STANDARD)

HOW TO SETUP IR CODES :

Model number : HD-88LA
CUSTOM CODE : 38C7

POWER ON : 38C7 A15E
POWER OFF : 38C7 A25D

ALL : 38C7 B04F
OFF : 38C7 B14E
EDID : 38C7 B748
LOCK : 38C7 B54A
RECALL : 38C7 B24D
MEMORY : 38C7 B44B
ENTER : 38C7 B34C

PRESS DESTINATION then - # PRESS SOURCE - #

DESTINATION #1 : 38C7 10EF
DESTINATION #2 : 38C7 20DF
DESTINATION #3 : 38C7 30CF
DESTINATION #4 : 38C7 40BF
DESTINATION #5 : 38C7 50AF
DESTINATION #6 : 38C7 609F
DESTINATION #7 : 38C7 708F
DESTINATION #8 : 38C7 807F

SOURCE #1 : 38C7 01FE
SOURCE #2 : 38C7 02FD
SOURCE #3 : 38C7 03FC
SOURCE #4 : 38C7 04FB
SOURCE #5 : 38C7 05FA
SOURCE #6 : 38C7 06F9
SOURCE #7 : 38C7 07F8
SOURCE #8 : 38C7 08F7

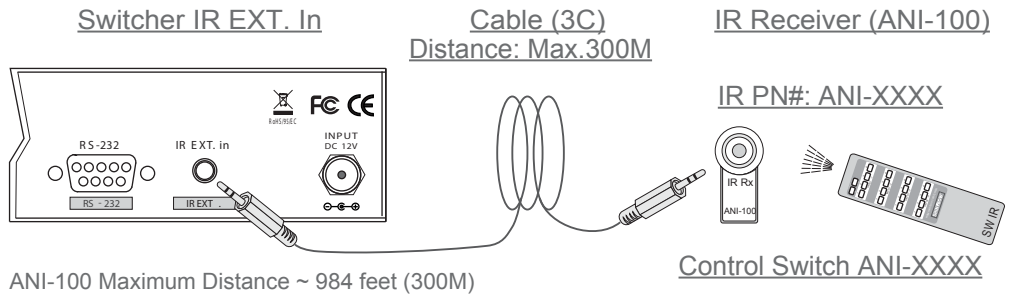
For example;
Select Destination # 1 to show Source #1~8,

The IR Data Code list :

Destination # 1 , Source #1 38C7 10EF 38C7 01FE
Destination # 1 , Source #2 38C7 10EF 38C7 02FD
Destination # 1 , Source #3 38C7 10EF 38C7 03FC
Destination # 1 , Source #4 38C7 10EF 38C7 04FB
Destination # 1 , Source #5 38C7 10EF 38C7 05FA
Destination # 1 , Source #6 38C7 10EF 38C7 06F9
Destination # 1 , Source #7 38C7 10EF 38C7 07F8
Destination # 1 , Source #8 38C7 10EF 38C7 08F7

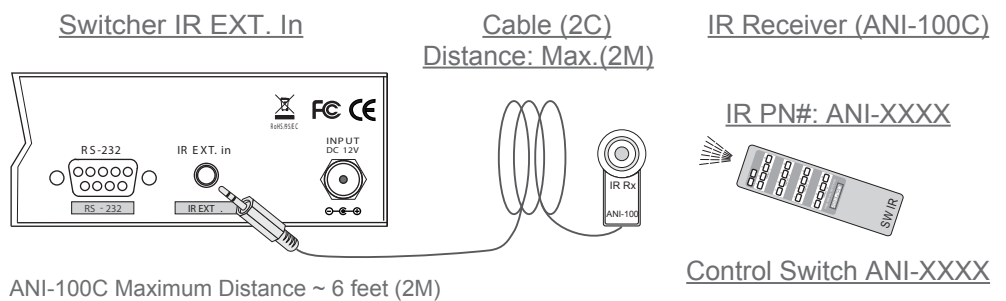
IR EXTENDER

1. ANI-100 IR 300M Receiver



The ANI-100 IR Receiver is required when using the port “ALL in” Jack.

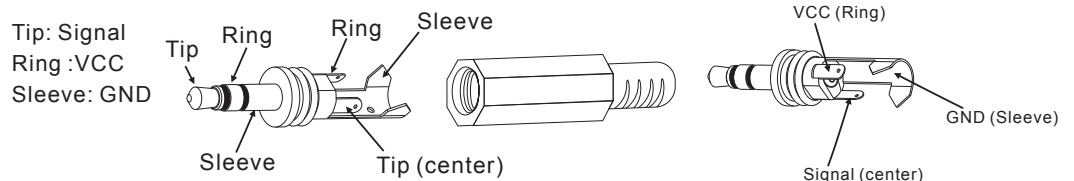
2. ANI-100C IR 2M Receiver



The ANI-100C IR Receiver will not function on the port “ALL in” Jack.

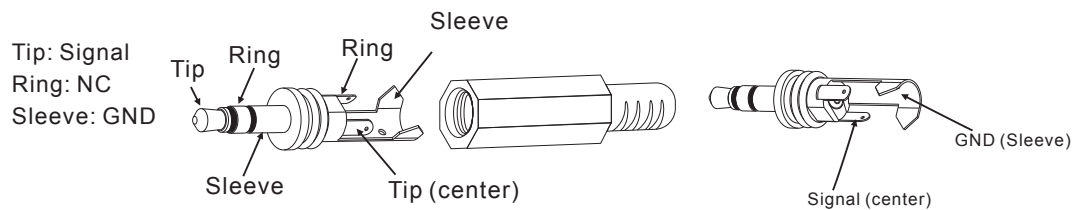
*** When you plug the External IR extender into the switcher, the front panel IR receiver remains active. ***

Pin configuration for IR 984 feet (300M) Extender Receiver such as ANI-100 compatible



ANI-100 Receiver and ANI-101 Transmitter The DISTANCE maximum ~ 984 feet (300M)

Pin configuration for IR Receiver 6 feet (2M) cable such as ANI-100C compatible







ANI-100 Receiver and ANI-101C Transmitter The DISTANCE maximum ~ 984 feet (300M)

Note: The External IR jack has voltage on the “Ring” portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.

EDID FUNCTION

EDID FUNCTION SETUP

EDID setup	To change the EDID setup
Step 1. Press the EDID button	The display will show the currently selected EDID mode
Step 2. Press SOURCE #1 or #2 button row	The button will flash blue and the display will show the current Embedded EDID Status.
Step 3. Press the ENTER button	To set EDID mode. The switcher will return to operation mode.
Operation will abort if no keys are pressed within 5 seconds.	

Embedded EDID modes	Total 8 EDID Modes
<p>Embedded EDID setup</p> <p>Press EDID > SOURCE > ENTER</p> <p>SOURCE #1 or SOURCE #2</p>	<p>To select Embedded EDID mode or LEARNING mode</p> <p>Press EDID button : The LCM will show the current EDID status.</p>  <p>Repeatedly depressing the source 1 button will cycle up thru the options. Repeatedly depressing the source 2 button will cycle down thru the options. Select Embedded EDID :</p> <p>Mode 1 : FSS Mode 2 : H24-3D Mode 3 : H24-3D-M Mode 4 : H36-3D Mode 5 : H36-3D-M Mode 6 : DVI-D 1280x1024-60Hz Mode 7 : DVI-D 1920x1200-60Hz Mode 8 : AUTO</p>
RESET	EDID Return To Factory default
<p>How to RESET EDID mode</p> <p>Press EDID > RECALL > ENTER</p>	<p>RESET To the FACTORY DEFAULT (1080p-2CH). Press EDID button : The LCM will show the current EDID status. Press RECALL button : The LCM will show the RESET EDID.</p>  <p>Press ENTER to confirm entries. The EDID will return to FSS mode and resolution 1080p-2CH.</p> 
LEARNING EDID	Learning EDID from Destination to Source
<p>Learning EDID setup</p> <p>Press EDID > DESTINATION > SOURCE > ENTER</p>	<p>Press EDID > DESTINATION Button. The LCM will be show LEARNING.</p>  <p>Switcher will LEARN destination EDID and pass the selected source.</p>

EDID FUNCTION

NOTE : The already learned EDID cannot be modified. You can only rebuild a new Learning EDID.

For example: When the Source has “Learned” the EDID data from a destination, It will save that EDID information into EPROM and the EDID data cannot change.

Please select new learning destination to sources or change to one of the embedded EDID modes when you want to remove the learning EDID memory from EPROM.

EDID function : 8x Embedded EDID Modes

Mode 1. FSS® (Fast Speed Start)

EDID :
1. FAST SPEED START

Fast Speed Start mode shortens the startup time of the switcher. Selecting this mode does not force the EDID setup to be cancelled. Users may first select one EDID mode from mode 2 to 3, and then select mode 1 for fast speed start.

Mode 2. H24-3D (1080p-24 bits)

EDID :
2. H24-3D, PCM 2CH

Video Support : All resolutions up to and including 1080p.
Audio Support : PCM 2CH

Mode 3. H24-3D-M (1080p-24bits)

EDID :
3. H24-3D, MULTI AUDIO

Video Support : All resolutions up to and including 1080p.
Audio Support : MAT(MLP) 7.1CH, PCM 2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS 5.1CH, PCM 7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH

Mode 4. H36-3D (1080p-36 bits)

EDID :
4. H36-3D, PCM2CH

Video Support : All resolutions up to and including 1080p.
Audio Support : PCM 2CH

Mode 5. H36-3D-M (1080p-36 bits)

EDID :
5. H36-3D, MULTI AUDIO

Video Support : All resolutions up to and including 1080p.
Audio Support : MAT(MLP) 7.1CH, PCM 2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS 5.1CH, PCM 7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH

Mode 6. 1280x1024-60Hz (DVI-D)

EDID :
6. 1280x1024-60HZ DVI-D

DVI Support : DVI-D 1280x1024 60Hz

Mode 7. 1920x1200-60Hz (DVI-D)

EDID :
7. 1920x1200-60HZ DVI-D

DVI Support : DVI-D 1920 x 1200 60Hz

Mode 8 . AUTO <Default>

EDID :
8. AUTO MODE

Video Support : All resolutions up to and including 1080p.

All Outputs will be set to the highest common resolution of all connected display devices.

EDID FUNCTION

EDID FUNCTION : LEARNING

Learning EDID Single to Single	Example : Learn Destination #8 EDID To Source #5.
Step 1. Press the EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2. Press the Destination #8 button row	Copy the Destination #8 Display EDID.
Step 3. Press the Source #5 button row	Learning the Destination #8 EDID To Source # 5.
Step 4. Press ENTER button	To confirm entries.
Learning EDID Single to multiple	Learning destination EDID link to the majority Sources
Step 1. Press the EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2. Press the Destinations #1~8 button row	Copy any 1~8 Destinations EDID.
Step 3. Press the Source #1, #6,~#8 button row	Learning the Destination EDID link to source #1,#6,~#8.
Step 4. Press ENTER button	To confirm entries.
Learning EDID Single to ALL	Learning destination EDID link to All Sources
Step 1. Press the EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2. Press destination button 1 thru 8	Learning anyone 1~8 Destination EDID to all sources.
Step 3. Press ALL button	Learning selected destination EDID to all sources.
Step 4. Press ENTER button	To confirm entries.

EDID FUNCTION FOR HDMI MATRIX SWITCHER

EDID status	To view the current EDID status.
Step 1. Press the EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2. Press the EDID button	To exit.
How to setup FSS® Function	Fast speed start®
Step 1. Press the Destination #1~8 button row Then Press the Source #1~8 button row	To setup and Install all devices.
Step 2. Press the EDID button	Select a optimum status of Embedded EDID mode.
Step 3. Press ENTER button	To conform entries.
Step 4. Press the EDID button	To select the EDID FSS® mode.
Step 5. Press ENTER button	To conform entries.
LEARNING EDID definition	Learning EDID from Destination to Source
<p>1. Switcher will LEARN destination EDID and pass the selected source.</p> <p>2. To set up learning between a single destination and single source: Press EDID button > Press Destination 1 thru 8 > Press Source 1 thru 8 > Press ENTER to confirm. Switcher will learn destination EDID to source device.</p> <p>3. To set up learning between a single destination and Multiple sources: Press EDID button > Press Destination 1 thru 8 > Press the majority Sources 1 thru 8 > Press ENTER. Switcher will learn single destination EDID to many source devices.</p> <p>4. How to Learning single destinations with all sources. Press EDID button > Press ALL button > Press ENTER to confirm.</p>	

EDID FUNCTION

AUTO MODE definition

Common Resolution and Audio

Switcher will find highest common Resolution and Audio from all destination EDID to link Source.

Example for single source

Destination > press #1 and then Source > press #1

Destination device #1 will set to the highest common resolution and Audio of source #1

Example for multiple sources

Destination device #1, #2, #3 will be set to the highest common resolution and Audio available and source device #1 will output this same resolution.

ETHERNET SERIAL INTERFACE

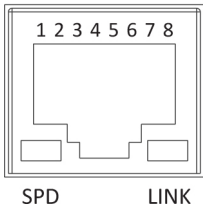
ETHERNET SERIAL INTERFACE CONNECT A PC OR CONTROL SYSTEM. VERSION COMPATIBLE V2.0

For a complete list of commands, please reference external document extended Ethernet Protocol Instruction Manual.

Example of the commanded string to route Input 3 to Output 4

OUTPUT04 03;

Ethernet



Note :

Control the switcher

SPD : Speed

LINK : Ethernet link

RJ-45 Female 8P-8Cconnector

ETHERNET SERIAL INTERFACE

Pin	Ethernet	Reference
1	TXOP	TX +
2	TXON	TX -
3	RXIP	RX +
4	NC	
5	NC	
6	RXIN	RX -
7	NC	
8	GND	

ETHERNET TCP/IP PROTOCOL COMMANDS (Ethernet / RS-232 Control driver V2.0)

*** When Ethernet is used, the switcher will not accept commands from the RS-232 port. ***

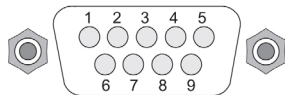
RS-232 SERIAL INTERFACE

RS-232 SERIAL INTERFACE CONNECT A PC OR CONTROL SYSTEM. VERSION COMPATIBLE V2.0

For a complete list of commands, please reference external document extended RS-232 Protocol Instruction Manual.

Example of the commanded string to route Input 3 to Output 4

OUTPUT04 03;



RS-232 SERIAL INTERFACE

Pin	RS-232	Definition
1	-----	Not used
2	TX	Transmitter
3	RX	Receiver
4	-----	Not used
5	GND	Ground
6	-----	Not used
7	-----	Not used
8	-----	Not used
9	-----	Not used

RS-232 PROTOCOL COMMANDS (RS-232 Control driver V2.0.1)

The switcher can be controlled via the RS-232 serial control port to allow for interfacing to a PC, or similar third party control system.

The serial communication parameters are 9600 baud, 8 bit, No Parity and 1 stop bit - this is often referred to as 9600 8N1.

When the unit recognizes a complete command it will perform the requested action - there is no delimiter character required.

QUICK START:

Data String Format:

The Data String contains four elements.

[Command][][Data];

The format is:

1. Command
2. Space
3. Data
4. ;

There is a single space after the Command and before the Data string.

The data string must conclude with an “;” (without the quotes).

All text is full ASCII Code and is NOT case sensitive.

LINK is the same as Link. You can use either capital letters or small letters and get the same result.

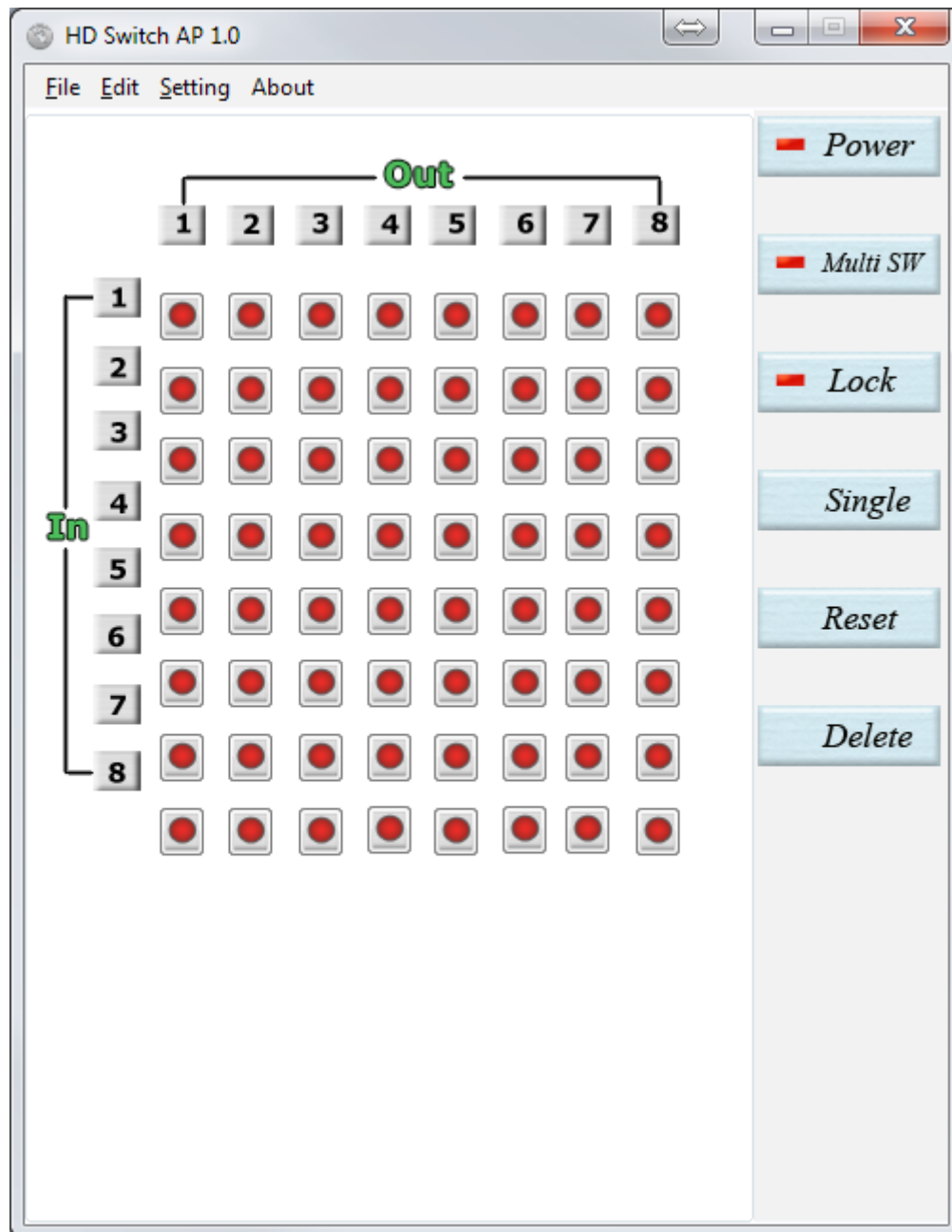
Function	Command
Power Off	Power 00:
Power On	Power 01;
Input 3 to Output 4	OUTPUT04 03;
All Input 5	OUTPUTALL 05;

GUI INTERFACE



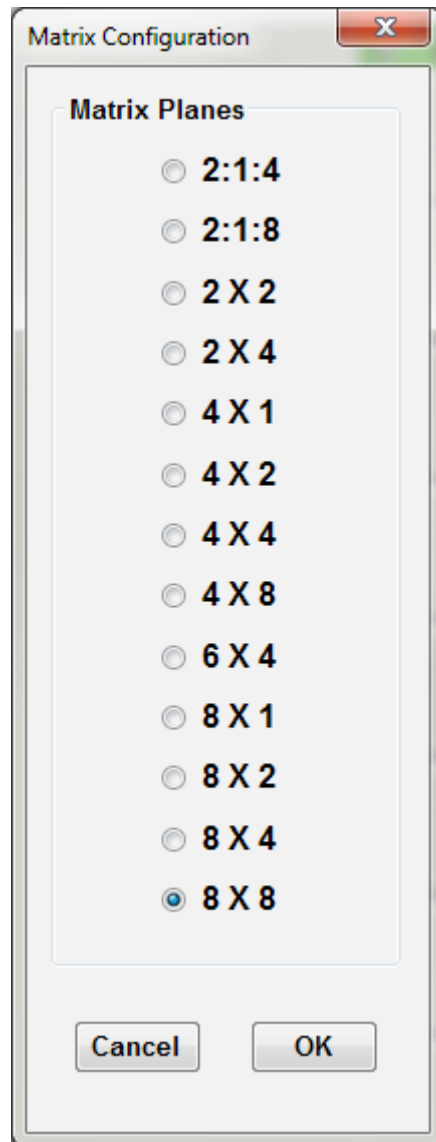
1A: Supports routing using Lines

GUI INTERFACE



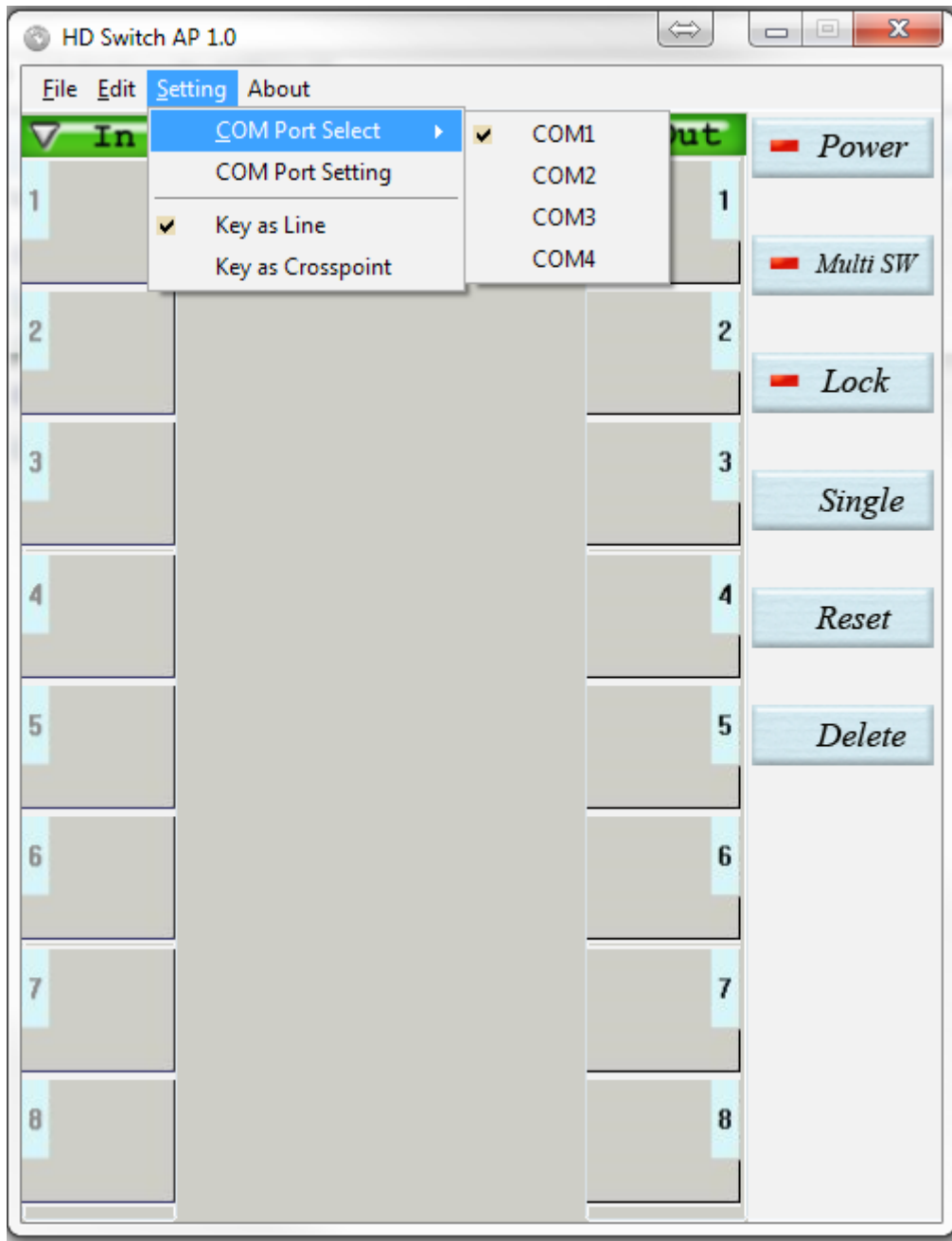
1B: Supports routing using Cross points

GUI INTERFACE



2: Select different matrix sizes

GUI INTERFACE



3: Support COM ports 1 thru 4

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